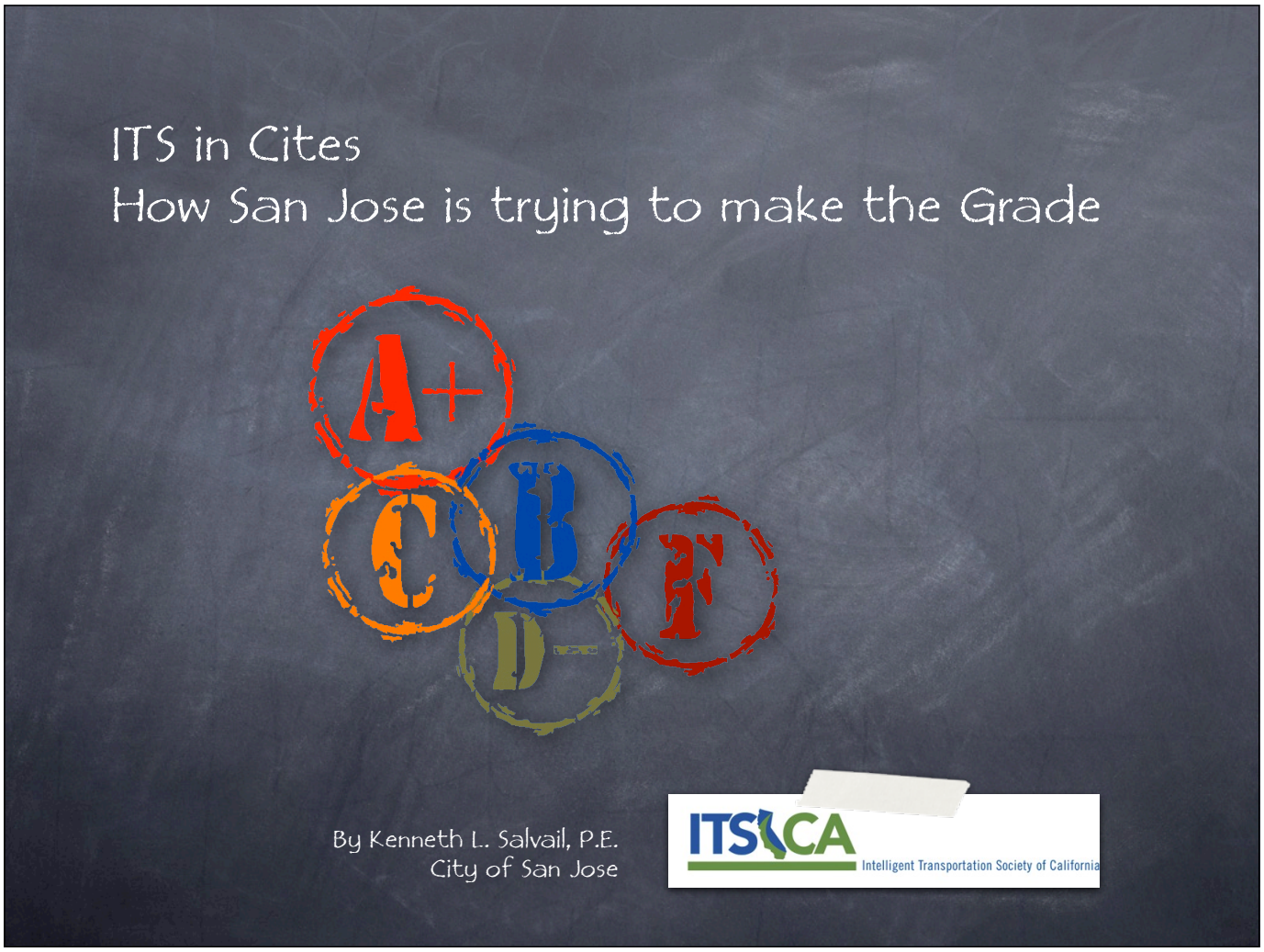
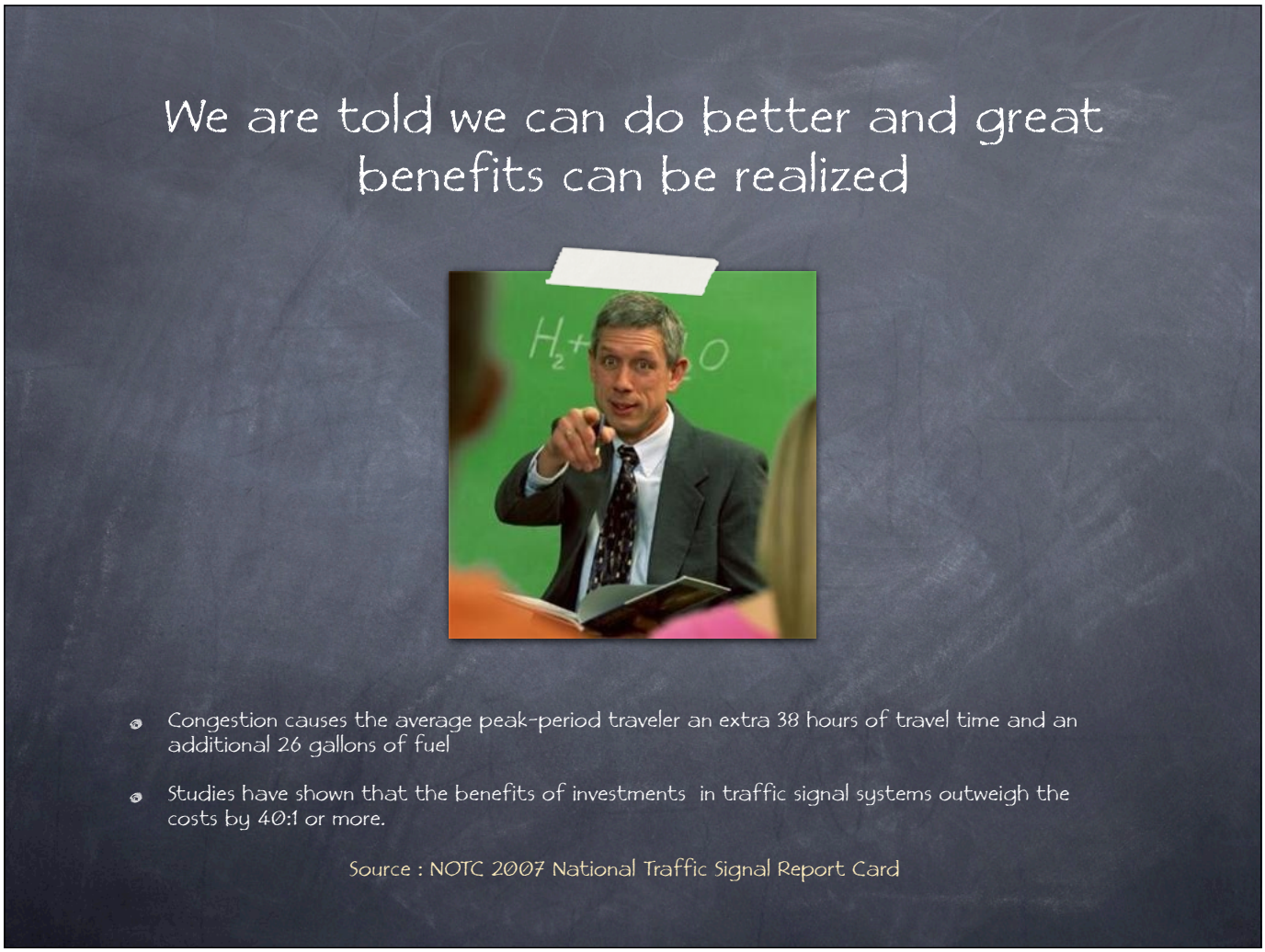


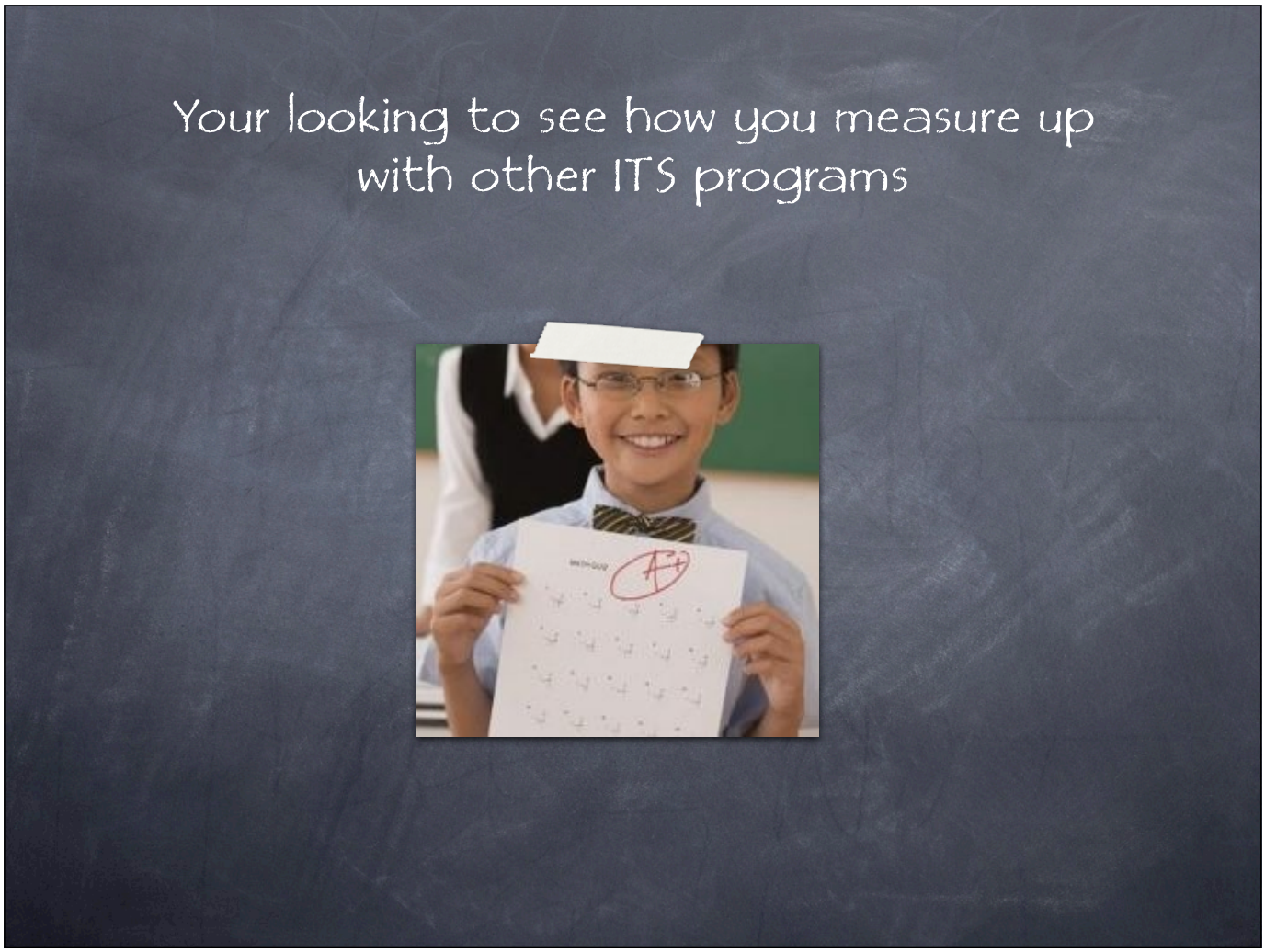
Welcome and thank you for taking time out of your busy schedules to participate in our discussions.



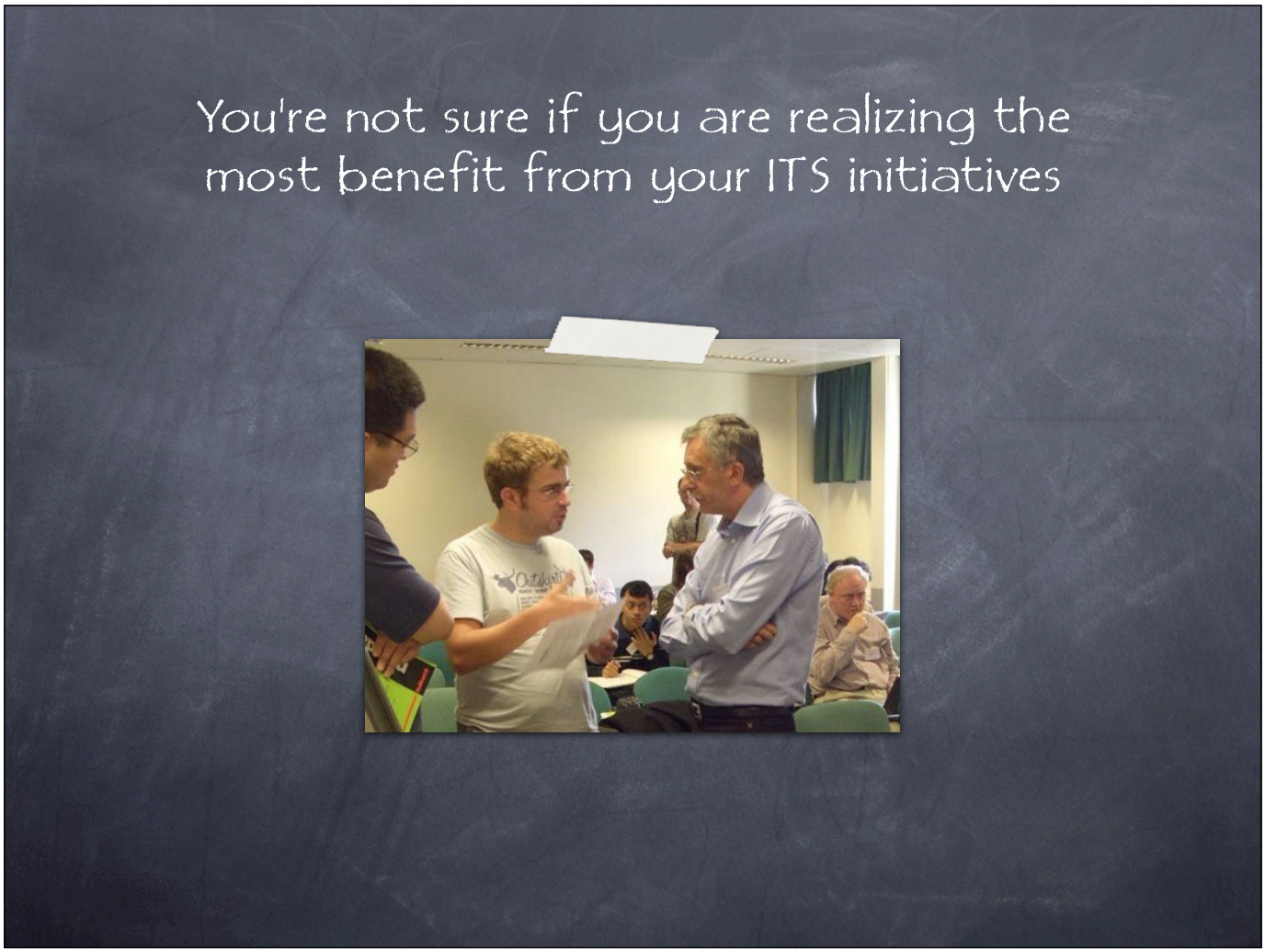
Were always reminded that growing congestion in U.S. transportation systems poses a substantial threat to the U.S. economy and to the quality of life of millions of Americans.

And according to the FHWA, approximately half of all congestion can be traced to “recurring” causes such as physical bottlenecks and poor signal timing, and the other half to “non-recurring” events such as accidents, and construction work zones. They remind us that we have significant ability to mitigate the impacts of congestion and provide critical additional capacity during peak traffic periods by more effectively addressing these factors.

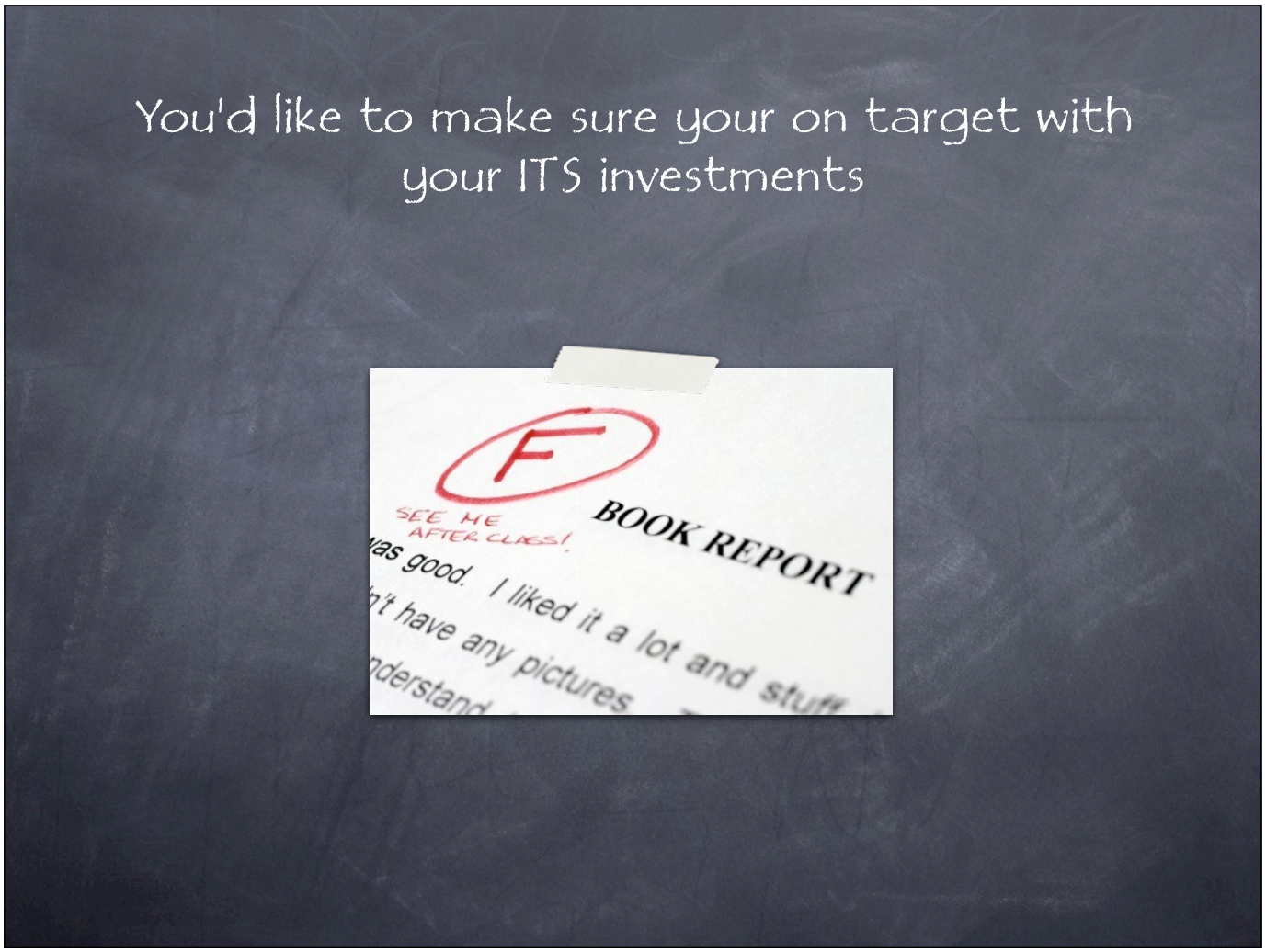
CLICK - Furthermore, the 2007 National Traffic Signal Report Card states Congestion causes the average peak-period traveler an extra 38 hours of travel time and an additional 26 gallons of fuel and studies have shown that the benefits of investments in traffic signal systems outweigh the costs by 40:1 or more.



I am assuming you like myself are always asking how well am I performing. Workshops like these are a wonderful opportunity to benchmark ourselves with others.



How do you know if you are realizing the most benefits from your initiatives? I do not have the answer, however, hopefully through the discussions today and by the end of the workshop you will.



Like any kind of investment, you want to be sure you are getting a significant value for the dollars being spent. Sometimes it works out and other times you need to step back and regroup and spend some quality time with the teacher...seek consul or perform additional research...

Learn about San Jose's experience and understand our goals to see how you compare

In the next several slides I plan to share San Jose's experiences and help you understand our goals.

As background...San José relies heavily on its arterial roadway network to move people and goods. San Jose has 1,160 freeway lane miles, and equally extensive arterial lane miles of 1,210 miles. Based on the 2000 FHWA Highway Performance Monitoring System Report, San José's arterial daily vehicle miles traveled is 7.9 million. It is easy to recognize that arterial operations are very critical to the movement of goods and people.

We accomplished key operation goals and had our epic failures

In the 1990's San Jose started it's ITS initiatives and had very defined goals. Many significant accomplishments have be made...and we have and our failures as well.

Grant money was secured to install CLICK – new controllers that were interconnected with copper wire to a CLICK – central traffic management center at a new TMC and this was used to CLICK– maintain signal coordination. Significant benefits were made in reducing traffic delay.

In addition, CLICK – dynamic message signs and CLICK – cameras were installed to manage traffic congestion in and around CLICK – San Jose's event center.

These tools proved to be very valuable in managing traffic.

San Jose started a regional ITS program in the early 2000's to address regional congestion.

Other TMC's were built such as the County TOC shown here and an extensive amount of traffic surveillance cameras were installed to manage traffic. And a Regional video sharing was implemented to allow each agency to view other agency video.

Traffic signal flush plans were also deployed along a corridor parallel to the freeway to address traffic diverting away from freeway incidents. A Traffic data sharing Network was also deployed to allow operations staff to view other agency's signal timing.

A regional Incident notification system was also deployed. I will discuss our experiences with these last two efforts in the next slide.

The Regional traffic data sharing and incident notification system did not work out as envisioned. The most important thing realized was the relationships/partnerships that were forged by our efforts. Being able to pickup the phone and easily converse with agency colleagues proved more valuable then being able to or wanting to view/control each others traffic signal management system.

CLICK - Another endeavor that did not work out as planned was our Traveler Information System. It was a system ahead of it's time before iPhone's and iPad's. It tried to present destination information for users to search and then provide transportation options back to the user. Unfortunately, it was designated to a specific landmark while project partners pushed for a web presence. CLICK - Today it is San Jose's Business Owner Space.

We are reinvesting to achieve our 2.0 goals

We have pursued more than $25 million dollars in grants recently to upgrade and enhance our systems...our second generation efforts.

San Jose secured a $15 million dollar Traffic Light Synchronization Program TLSP grant to address our aging infrastructure and make operation and capacity improvements. The 20 year controllers are being replaced with 2070 advanced controllers that will provide greater functionality. Capacity improvements will be made with transit signal priority and CLICK - traffic adaptive timing. The City is better able to support land use and transportation mobility initiatives, for example higher density development along transit corridor. With the new firmware we selected, the advanced controller will allow implementation of more complex strategies with a higher number of phasing plans.

We are also upgrading the communication system to a Ethernet network, similar to your office desktop and home network systems. Fiber trunk backbones that aggregate the existing copper are being deployed. Wireless access points are also being deployed where hard-wire does not exists. This connected Ethernet network allows us to add other transportation services with minimal effort. To-date we have connected the City's parking garages to support their revenue and video monitoring system. Plans have been initiated to connect vehicle speed feedback signs and LED streetlights in able form them to communicate to a central management system.

CLICK - 141 traffic signal locations are also planned to receive traffic surveillance cameras. These will be digital video that takes advantage of the connected Ethernet network. Remote video monitoring and management of traffic signal systems allows timely repair and restoration of intersection operations, enabling the City to be responsive to real-time traffic conditions. Regional and local traffic management can be performed by either agencies; arterial and freeway operations can be better integrated.

We are building throughput capacity to relive congestion

The TLSP grant includes retiming traffic signals along approximately 60 corridors. As mentioned before, congestion in Silicon Valley is ranked amongst the worst in the Bay Area. Traffic congestion not only causes traffic delays and lost hours of productivity, it causes commuter frustration and degrades the environment by increasing air and water pollution. As the reliability and efficiency of our roadway system improves, the quality of life, the environment and the movement of goods and services should also improve.

We anticipate a reduction in vehicle travel times by 15%; · Reduction of vehicle stops by 25%; · Reduction of 839,000 hours of vehicle delay, providing an annual delay savings of over $50M to the traveling public.

We have also secured grant monies for our second generation Transportation Incident Management Center. This time we are very conscious about not building or deploying systems that will not be utilized by project partners. We are also developing more proactive tools to address congestion before it is reported as a problem. We are looking at public/private partnerships for getting historical and real-time congestion information. CLICK – as a way to be alerted of abnormal roadway performance issues. We are looking to supplement the congestion data with significant public safety incidents, construction closure activities, infrastructure deficiencies to better assess what actions are necessary.

We are also looking to support MTC 511 program with arterial traffic surveillance video feeds and congestion information. This is being done to centralize the regions traveler information so users do not need to navigate to several information sources and so they can select the most intelligent traveling alternative.

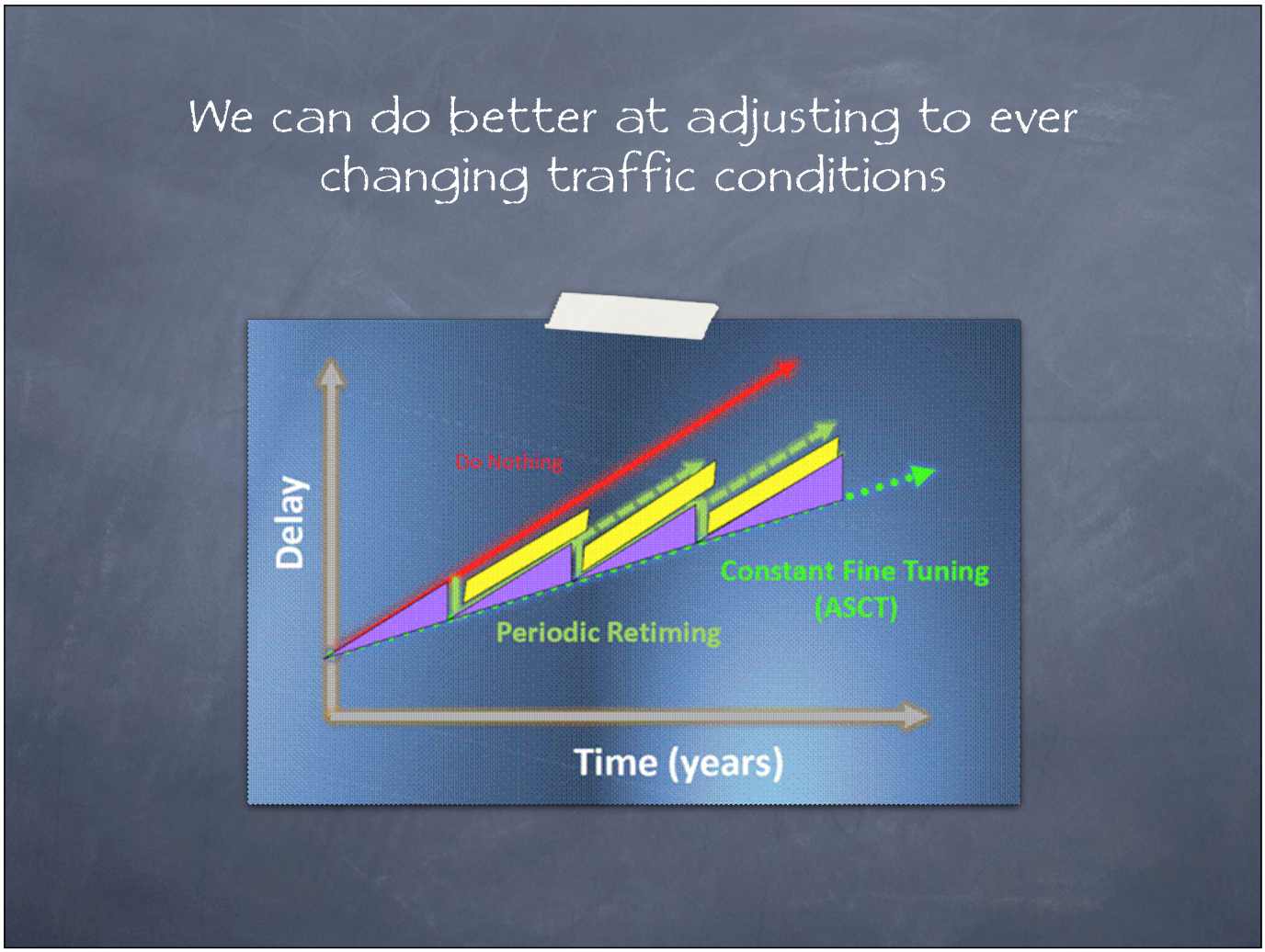
We anticipate many challenges and more opportunities

We are encountering challenges now that are key to address in moving forward. There are also several future opportunities that can be seized given are investment in our infrastructure, especially our Ethernet connected network.

Dedicated staff to interface with the new proactive systems is key to reaping additional benefits. And these systems will degrade if not maintained and managed on an ongoing basis.

Unfortunately the is plenty of funding to build infrastructure and little to none to fund ongoing management and operation efforts.

As you can see, the slide is blank...the solution is out there...somewhere.

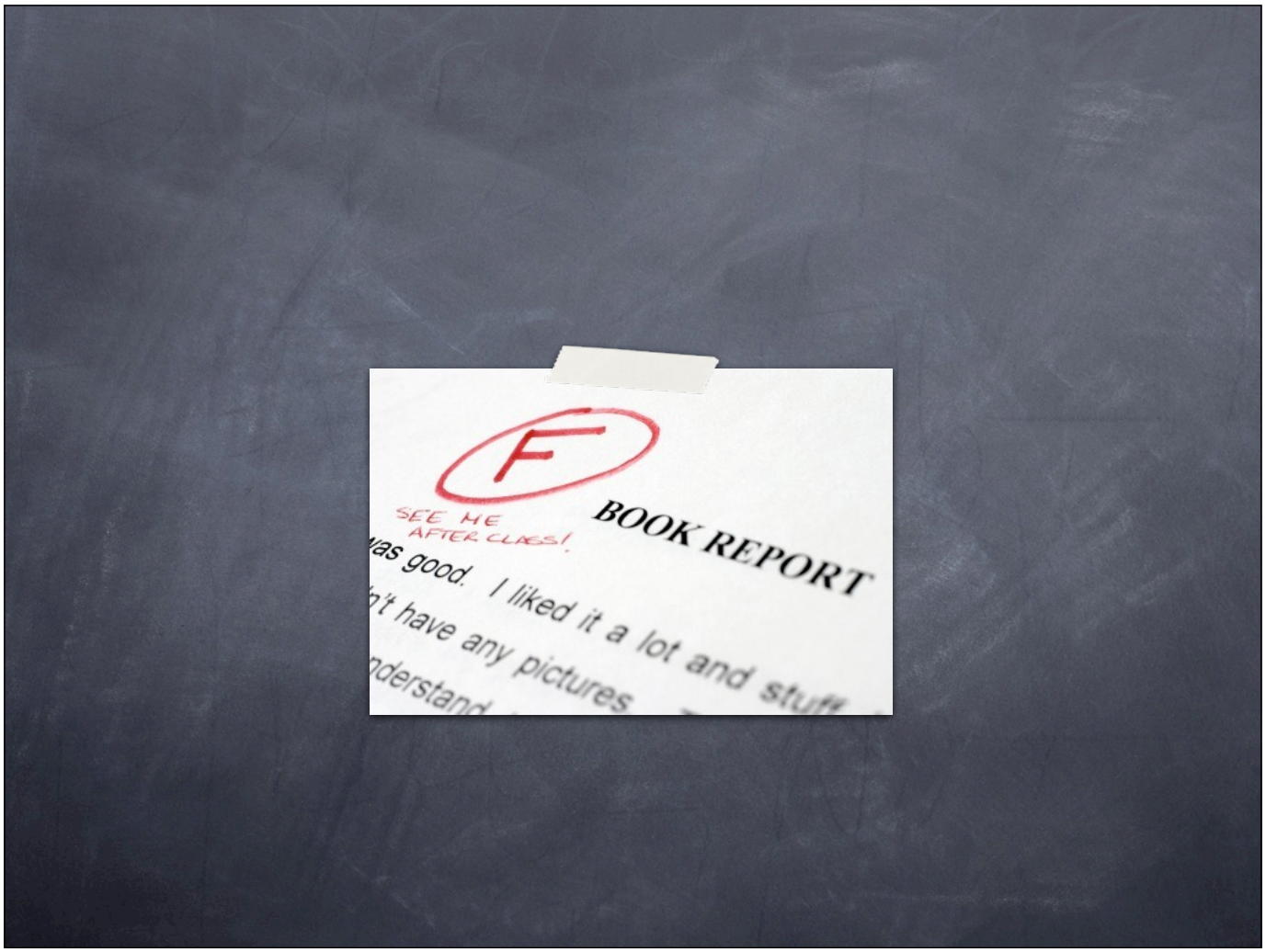


San Jose has been successful in securing traffic signal retiming grants to maintain coordinated corridors at least once every three years. Grant funding is getting scarce for such efforts and as you can see from the chart that ongoing fine tuning reaps the most benefit. With increased and enhanced data collection provided by the public/private partnerships I know we can do better at adjusting to changing conditions. We will be on the lookout for alternatives such as simpler Adaptive traffic control systems targeted for coordinated corridors.

With the recovery of the economy coming so will be an increase in levels of congestion, and it is more important now then ever to look at how to support mode shifting to less invasive transportation methods. To that end, we have secured a grant to test different detection technologies and Bicycle mobility strategies to encourage more bicycle riding.

Based on FHWA reports, Economists have long advocated that paying for the price of congestion directly is the most viable means to address the problem congestion and reduce overall congestion costs. The price of highway travel (gas taxes, registration fees, etc.) currently bears little or no relationship to the cost of congestion, As a result, the network gets swamped, vehicle throughput collapses, and the cost of congestion to all users grows rapidly. European countries have been developing congestion pricing models for years now and soon with Intelidrive (or some modified form) and supported with agency's Ethernet connected networks, congestion pricing will become a reality.

You will remember we started today with the question are you realizing the most benefit from your ITS initiatives



And agreeing that you would like to make sure your on target with your ITS investments. That's been my focus today.

Well hopefully San Jose's experience and goals can answer your questions and asses if you are making the grade.